

### **AMENDMENTS TO THE CLAIMS**

The following listing of Claims will replace all prior versions, and listings, of Claims in the application:

#### **Listing of Claims:**

Please cancel Claims 1- 57.

Please add new Claims 58-100.

58. (New) A method for replacing a first sub-hierarchy of at least two sub-hierarchies of a hierarchical filesystem (HFS) with a second sub-hierarchy of the at least two sub-hierarchies, the HFS having a single parentless root directory and being accessible by at least one processor, wherein the HFS provides a mapping between a disk sector and user data, the method comprising the steps of:

providing for the first sub-hierarchy to include a first root directory located in a first location of the HFS associated with the single parentless root directory of the HFS through at least one internal pointer, wherein the first sub-hierarchy includes a first plurality of files configured to branch from the first root directory;

providing for the second sub-hierarchy to include a second root directory located in a second location of the HFS, wherein the second sub-hierarchy includes a second plurality of files configured to branch from the second root directory; and

replacing the first sub-hierarchy with the second sub-hierarchy comprising the step of:  
associating the second root directory and the single parentless root directory of the HFS through the at least one internal pointer.

59. (New) The method according to claim 58, wherein the associating step further comprises the step of reconfiguring the second plurality of files to branch from the second root directory when the second root directory is accessed through the first location.

60. (New) The method according to claim 58, wherein the associating step further comprises the step of configuring of the first plurality of files to branch from the first root directory including once the first root directory is accessed through the second location.

61. (New) The method according to claim 60, wherein the HFS implementation is an FAT implementation, the first root directory is associated with a volume label, and the second root directory is provided with a parent directory, a parent pointer and a self pointer, and wherein the associating step further comprises the steps of:

associating the volume label with the second root directory instead of the first root directory;

removing the self and parent pointers from the second root directory and providing the self and parent pointers to the first root directory; and

updating the parent directory of the second root directory to hold a value which corresponds to the second location.

62. (New) The method according to claim 60, wherein the HFS implementation is an NTFS implementation, the HFS is provided with file records storing directory attribute data corresponding with the first and second root directories, the first root directory is provided with at least one special system file which is exclusive to the parentless root directory, the second root

directory is provided with a placeholder file which corresponds to each of the special system files, the first and second root directories are each provided with at least one file entry, the respective file entries of the first and second root directories are provided with corresponding owning directories, and the respective owning directories are provided with corresponding back-pointers, and wherein the associating step further comprises the steps of:

exchanging owning directories corresponding to the file entries of the first root directory with owning directories corresponding to the file entries of the second root directory;

exchanging the owning directory back-pointers of the first root directory with corresponding owning directory back-pointers of the second root directory;

exchanging the contents of the at least one special system file with content of corresponding files of the at least one placeholder file; and

exchanging directory attribute data of the file record associated with the first root directory with directory attribute data associated with the second root directory.

63. (New) The method according to claim 58, wherein the associating step is performed without copying content of the first or second plurality of files.

64. (New) The method according to claim 58, wherein the first and second sub-hierarchies are mutually exclusive.

65. (New) The method according to claim 58, further comprising the step of manipulating the at least one pointer of the HFS for replacing selectable portions of data from the first sub-hierarchy with corresponding data from the second sub-hierarchy.

66. (New) The method according to claim 58, wherein the HFS is a readable file system throughout the associating step.

67. (New) The method according to claim 58, further comprising the step of providing for first and second operating systems associated with first and second sub-hierarchies respectively, the first and second operating systems being executable on the at least one processor in the respective first and second sub-hierarchies.

68. (New) The method according to claim 58, wherein the physical location of the first and second root directories is unchanged by and after the associating step.

69. (New) The method according to claim 58, the step of allowing access by an operating system executed on the at least one processor to at least one of the first and second sub-hierarchies when at least one of the first and second sub-hierarchies is associated with the single parentless root directory of the HFS.

70. (New) The method according to claim 58, wherein the HFS resides upon a single storage medium selected from the group of storage media consisting of physical and virtual storage media.

71. (New) The method according to claim 70, wherein the storage medium is a disk.

72. (New) The method according to claim 70, wherein the HFS resides on one of a single partition and a single volume of the medium.

73. (New) The method according to claim 58, wherein the second location is associated with a container directory branching from the root directory of the HFS.

74. (New) The method according to claim 58, wherein the content of the first sub-hierarchy includes an upgrade of content of the second sub-hierarchy.

75. (New) The method according to claim 58, wherein before the replacing step the first root directory is at a higher hierarchical level than the second root directory, and after the reconfiguring step the second root directory is at a higher hierarchical level than the first root directory.

76. (New) The method according to claim 58, wherein the first and second sub-hierarchies provide different user environments.

77. (New) The method according to claim 58, wherein the first and second addresses of the first and second root directories are associated with first and second cluster numbers corresponding to the first and second root directories, respectively.

78. (New) The method according to claim 58, wherein the replacing is performed without altering one of an electrical and a physical connection.

79. (New) The method according to claim 58, wherein the HFS uses one of an NTFS and a FAT HFS implementation.

80. (New) A computer system comprising:  
at least one processor;  
a hierarchical filesystem (HFS) stored on a storage medium accessible by the at least one processor and including at least a first and second sub-hierarchy and a single parentless root directory, wherein the HFS provides a mapping between a disk sector and user data, and wherein:

the first sub-hierarchy includes a first root directory located in a first location of the HFS associated with the single parentless root directory of the HFS through at least one internal pointer, wherein the first sub-hierarchy includes a first plurality of files configured to branch from the first root directory; and

the second sub-hierarchy includes a second root directory located in a second location of the HFS, wherein the second sub-hierarchy includes a second plurality of files configured to branch from the second root directory; and

a set of programmable instructions executable on the at least one processor for replacing the first sub-hierarchy with the second sub-hierarchy comprising the step of:

associating the second root directory and the single parentless root directory of the HFS through the at least one internal pointer.

81. (New) The computer system according to claim 80, wherein the associating

step is performed without copying content of the first or second plurality of files.

82. (New) The computer system according to claim 80, wherein the storage system is a single storage medium selected from the group of storage media consisting of physical and virtual storage media.

83. (New) The computer system according claim 82, wherein the storage medium is a disk.

84. (New) The computer system according to claim 82, wherein the HFS resides on one of a single partition and a single volume of the storage medium.

85. (New) The computer system according to claim 80, wherein the associating step is performed without altering one of an electrical and a physical connection associated with the storage medium.

86. (New) The computer system according to claim 80, wherein the second root directory branches below from the first root directory.

87. (New) The computer system according to claim 86, wherein the HFS is a readable file system throughout the associating step.

88. (New) The computer system according to claim 80, wherein the physical location

of the first and second root directories is unchanged by and after the associating step.

89. (New) The computer system according to claim 80, wherein the HFS implements one of an NTFS and a FAT HFS implementation.

90. (New) The computer system according to claim 80, wherein the HFS implementation is a FAT implementation, the first root directory is provided with an associated volume label, and the second root directory is provided with a parent directory, a parent pointer and a self pointer, and the associating step further comprises the steps of:

configuring the volume label to be associated to the second root directory instead of the first root directory;

removing the self and parent pointers from the second root directory to the first root directory; and

updating the parent directory of the second root directory to hold a value which corresponds to the second address.

91. (New) The computer system according to claim 80, wherein the HFS implementation is an NTFS implementation, the HFS is provided with file records storing directory attribute data corresponding with the first and second root directories, the first root directory is provided with at least one special system file which is exclusive to the parentless root directory, the second root directory is provided with a placeholder file which corresponds to each of the special system files, the first and second root directories are each provided with at least one file entry, the respective file entries of the first and second root directories are provided with



corresponding owning directories, and the respective owning directories are provided with corresponding back-pointers, and wherein the associating step further comprises the steps of:

- exchanging owning directories corresponding to the file entries of the first root directory with owning directories corresponding to the file entries of the second root directory;

- exchanging the owning directory back-pointers of the first root directory with corresponding owning directory back-pointers of the second root directory;

- exchanging the contents of the at least one special system file with content of corresponding files of the at least one placeholder file; and

- exchanging directory attribute data of the file record associated with the first root directory with directory attribute data associated with the second root directory.

92. (New) A computer readable medium storing a set of programmable instructions configured for execution by at least one processor for exchanging a first sub-hierarchy of at least two sub-hierarchies of a hierarchical filesystem (HFS) with a second sub-hierarchy of the at least two sub-hierarchies, the HFS being accessible by the at least one processor and having a single parentless root directory, the programmable instructions comprising:

- means for providing for the first sub-hierarchy to include a first root directory located in a first location of the HFS associated with the single parentless root directory of the HFS through at least one internal pointer, wherein the first sub-hierarchy includes a first plurality of files configured to branch from the first root directory;

means for providing for the second sub-hierarchy to include a second root directory located in a second location of the HFS, wherein the second sub-hierarchy includes a second plurality of files configured to branch from the second root directory; and

means for replacing the first sub-hierarchy with the second sub-hierarchy configured to associate the second root directory and the single parentless root directory of the HFS through the at least one internal pointer without copying content of the first or second plurality of files.

93. (New) The computer medium according to claim 92, wherein the HFS resides upon a single storage medium selected from the group of storage media consisting of physical and virtual storage media.

94. (New) A method for replacing a first sub-hierarchy of at least two sub-hierarchies of a hierarchical filesystem (HFS) with a second sub-hierarchy of the at least two sub-hierarchies, the HFS being accessible by at least one processor and having a single parentless root directory, wherein the HFS provides a mapping between a disk sector and user data, the method comprising the steps of:

providing for the first sub-hierarchy to include a first root directory configured as the parentless root directory and located in a first location associated with a first address which corresponds to the location of the parentless root directory of the HFS, and a first plurality of files configured to branch from the first root directory;

providing for the second sub-hierarchy to include a second root directory located in a second location of the HFS associated with a second address different from the first address, and a second plurality of files configured to branch from the second root directory; and

replacing the first sub-hierarchy with the second sub-hierarchy comprising:

manipulating at least one internal pointer of the HFS for accessing the second root directory using the first address.

95. (New) The method according to claim 94, wherein the manipulating step further comprises the step of providing for configuration of the second plurality of files to branch from the second root directory when the second root directory is accessed using the first address.

96. (New) The method according to claim 95, wherein the manipulating step further comprises the step of manipulating at least one internal pointer of the HFS for accessing the first root directory of the HFS using the second address.

97. (New) The method according to claim 96, wherein the manipulating further comprises the step of providing for configuration of the first plurality of files to branch from the first root directory including once the first root directory is accessed using the second address.

98. (New) A computer system comprising:

at least one processor;

a hierarchical filesystem (HFS) stored on a storage medium including:

a hierarchy of a plurality of logical elements, wherein at least a portion of the plurality of logical elements is stored on a single storage medium, the hierarchy of the plurality of logical elements including:

at least a first and second sub-hierarchy and a single parentless root directory, wherein the first sub-hierarchy includes:

a first root directory located in a first location associated with a first address which corresponds to the location of the parentless root directory of the HFS and a first plurality of files configured to branch from the first root directory; and

the second sub-hierarchy includes:

a second root directory and a second plurality of files configured to branch from the second root directory, wherein the second root directory branches below from the first root directory and is located in a second location which is associated with a second address; and

the computer system further comprising a set of programmable instructions executable on the at least one processor for providing for replacing the first sub-hierarchy with the second sub-hierarchy comprising:

manipulating at least one internal pointer of the HFS for the second root directory to be configured as the parentless root directory of the HFS.

99. (New) The computer system according to claim 85, wherein the manipulating step further comprises configuring the first root directory to branch below from the second root directory.

100. (New) The computer system according to claim 86, wherein the manipulating step is performed without copying content of the first or second plurality of files.